

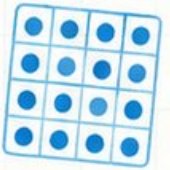
# 10

$$7 \times 8 = 56$$

$$\begin{array}{r} 32 \\ \times 6 \\ \hline 192 \end{array}$$



$$\frac{3}{4}$$

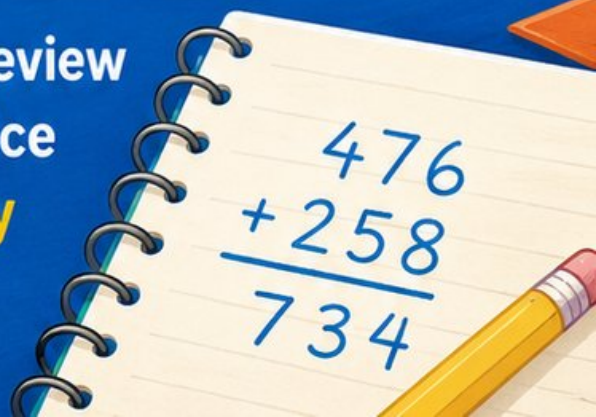


# Colorado CMAS GRADE 4 MATH



**PRACTICE TESTS**

Standards-Aligned Review  
with Mixed Practice  
and **Answer Key**



# 10 Colorado CMAS Grade 4 Math Practice Tests

*Standards-Aligned Review with Mixed Practice and Answer Key*



Ten complete 30-question Grade 4 practice rounds for CMAS, built around mountain passes, blue skies, and steady summit steps, with answer keys and clear explanations for every item.

**Jay Daie and Reza Nazari**



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# Welcome, Colorado Math Explorer!

Ten steady rounds on the Rocky Mountain math route

This book gives you ten full Grade 4 practice tests for CMAS. Each round uses mountain passes, blue skies, and steady summit steps to keep practice memorable while you read carefully, choose a strategy, show work, and check the answer.

## Colorado Practice Promise

I will slow down for the question, circle what matters, solve one step at a time, and use mistakes as clues for getting stronger.

Read

Plan

Check

## How to Use This Book

A ten-session routine for Colorado CMAS review

1. **Preview the skills.** Read the quick review pages before the first test.
2. **Take one test at a time.** Treat each round like a stop on the Rocky Mountain math route.
3. **Mark your confidence.** Put a small star beside problems you solved with a strong plan.
4. **Check, then retry.** For missed questions, try the problem again before reading the explanation.
5. **Track your next move.** Use the growth log to name one habit and one skill for the next test.

**Good rhythm:** Test one day, correct carefully the next day, then return for the next round when your corrections feel clear.



## What Is Inside?

Ten tests, 300 questions, and a full CMAS review path

Part	What You Will Practice
Tests 1–3	Warm-up rounds for reading carefully, choosing operations, and using models.
Tests 4–6	Skill-building rounds with fractions, measurement, area, data, and two-step problems.
Tests 7–9	Stamina rounds for mixed review, neat work, and flexible strategies.
Test 10	Final round to show growth across the whole Colorado book.
Answer Pages	Compact keys and explanations that show why each answer works.

The tests are mixed on purpose. Real test readiness means recognizing the skill even when the next question changes topic.



Scan me!  
For more practice  
& answers

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1) Order these fractions from least to greatest:  $\frac{1}{4}$ ,  $\frac{1}{2}$ ,  $\frac{1}{3}$ .

A.  $\frac{1}{2}$ ,  $\frac{1}{3}$ ,  $\frac{1}{4}$

B.  $\frac{1}{4}$ ,  $\frac{1}{2}$ ,  $\frac{1}{3}$

C.  $\frac{1}{3}$ ,  $\frac{1}{4}$ ,  $\frac{1}{2}$

D.  $\frac{1}{4}$ ,  $\frac{1}{3}$ ,  $\frac{1}{2}$

2) A juice box contains  $\frac{1}{3}$  liter. How many liters are in 7 juice boxes?

A.  $\frac{1}{21}$  liter

B.  $\frac{7}{3}$  liters (or  $2\frac{1}{3}$  liters)

C.  $\frac{7}{21}$  liter

D.  $\frac{3}{7}$  liter

3) Find  $\frac{5}{7} + \frac{3}{7}$  as a mixed number.

4) Which expression matches the fraction  $\frac{8}{10}$ ?

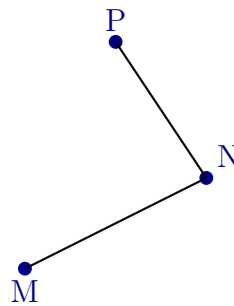
A.  $2 \times \frac{1}{10}$

B.  $8 \times \frac{1}{10}$

C.  $10 \times \frac{1}{8}$

D.  $8 \times \frac{1}{80}$

5) Which points are the endpoints of segment  $MN$  in this diagram?



A.  $M$  and  $N$

B.  $N$  and  $P$

C.  $M$  and  $P$

D. All three points



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& answers

6) Which list shows consecutive multiples of 5 starting at 5?

A. 5, 10, 15, 20, 25

C. 5, 10, 15, 20, 30

B. 5, 15, 20, 35, 40

D. 10, 20, 30, 40, 50

7) A spinner is divided into sections by angles. Three sections measure  $50^\circ$ ,  $60^\circ$ , and  $70^\circ$ . What is their combined angle measure?

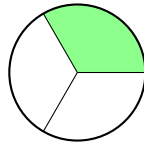
A.  $110^\circ$

C.  $180^\circ$

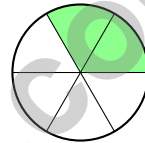
B.  $130^\circ$

D.  $120^\circ$

8) Look at the two circle models below. They are the same size. Which fraction in circle B is equivalent to the shaded part in circle A?



Circle A:  $\frac{1}{3}$



Circle B

A.  $\frac{1}{6}$

C.  $\frac{3}{6}$

B.  $\frac{4}{6}$

D.  $\frac{2}{6}$

9) Which pair of items from a classroom has right angles?

A. A pencil and a ball

C. A rope and a ball

B. A desk and a book

D. A clock and a spiral notebook





1) What is  $1\frac{5}{8} + 3\frac{3}{8}$ ?

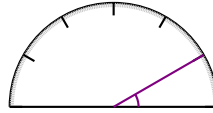
A.  $4\frac{7}{8}$

B. 5

C.  $4\frac{9}{8}$

D.  $5\frac{1}{8}$

2)



What is the measure of the angle shown?

 A. 30 degrees B. 45 degrees C. 60 degrees D. 90 degrees

3) What is the next number in the pattern? 1, 1, 2, 3, 5, 8, 13, \_\_\_

 A. 18 B. 20 C. 21 D. 22

4) Zoe ate  $\frac{2}{10}$  of a pizza and her brother ate  $\frac{1}{5}$  of the same pizza. Who ate more?

 A. Zoe ate more B. Her brother ate more C. They ate the same amount D. Cannot determine

5) A trapezoid with a vertical line of symmetry has what other special property?

 A. Both legs are equal length B. All four sides are equal C. It is a rectangle D. It has two parallel sides of different lengths

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For more practice  
& answers

6) What is  $2,156 \div 2$ ?

A. 1,078

C. 1,088

B. 1,068

D. 1,058

7) Which decimal has the same value as  $\frac{7}{10}$ ?

A. 0.07

C. 7.0

B. 0.70

D. 0.017

8) A digit 6 moves from the hundreds place to the thousands place. By what factor does its value increase?

A. 6

C. 1,000

B. 100

D. 10

9) Which equation does this bar model show?



A.  $2 \times \frac{2}{3}$

C.  $4 \times \frac{1}{2}$

B.  $2 \times \frac{1}{4}$

D.  $2 \times \frac{1}{2}$

10) Diego has  $\frac{5}{10}$  of a granola bar. How many tenths does he have?

A. 5 tenths

C. 2 tenths

B. 10 tenths

D. 15 tenths

11) What are all the factors of 12?

A. 1, 3, 5, 7, 12

C. 2, 3, 4, 6, 12

B. 1, 2, 4, 6, 12

D. 1, 2, 3, 4, 6, 12



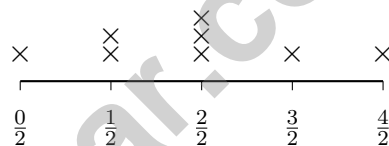
1) Diego simplified  $\frac{4}{8}$  and wrote  $\frac{2}{4}$ . His teacher said he is correct because the fractions are equivalent. Is the teacher right?

- A. Yes, the teacher is right;  $\frac{2}{4}$  is in simplest form  
 B. No, the teacher is wrong;  $\frac{4}{8} \neq \frac{2}{4}$   
 C. Yes, and both simplify further to  $\frac{1}{2}$   
 D. No, Diego should have written  $\frac{1}{4}$

2) A garden bed requires  $\frac{2}{3}$  bag of soil. How many bags are needed for 6 garden beds?

- A.  $\frac{6}{3}$  bags (or 2 bags)  
 B.  $\frac{2}{18}$  bag  
 C.  $\frac{12}{3}$  bags (or 4 bags)  
 D.  $\frac{6}{9}$  bag

3) Look at the line plot with measurements in halves:



How many data points are shown on this line plot?

- A. 4  
 B. 6  
 C. 8  
 D. 10

4) What is  $2\frac{1}{3} - 1\frac{2}{3}$ ? (Hint: You may need to regroup.)

- A.  $\frac{1}{3}$   
 B.  $\frac{2}{3}$   
 C.  $1\frac{1}{3}$   
 D.  $2\frac{1}{3}$



Scan me!  
For more practice  
& answers

5) A spinner makes a  $\frac{1}{4}$  turn. How many degrees does it rotate?

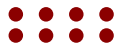
A.  $45^\circ$

C.  $90^\circ$

B.  $60^\circ$

D.  $120^\circ$

Alex



Claire

6)

Alex has 4 marbles. Claire has 2 times as many marbles as Alex. How many marbles does Claire have?

A. 6

C. 10

B. 12

D. 8

7) A toy costs \$8. A game costs 4 times as much. How much does the game cost?

A. \$12

C. \$2

B. \$4

D. \$32

8) Simplify  $\frac{2}{8}$ .



## Practice Test Answer Keys

**How to use this section with a Grade 4 student:**

1. check the answer first
2. mark questions to try again
3. rework the problem before reading the full explanation

**A calm correction routine turns every missed item into useful practice.**

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## Practice Test Answers and Explanations

### Practice Test 1 Answers and Explanations

- Choice D is correct.** **(4.NF.A.1)** All have numerator 1, so compare denominators: bigger denominators mean smaller pieces. Order:  $4 < 3 < 2$ , so  $\frac{1}{4} < \frac{1}{3} < \frac{1}{2}$ .
- Choice B is correct.** **(4.NF.B.4)** Seven juice boxes, each holding  $\frac{1}{3}$  liter, contain  $7 \times \frac{1}{3} = \frac{7}{3}$  liters total.
- The correct answer is  $1\frac{1}{7}$ .** **(4.NF.B.3)** Add the fractions:  $\frac{5}{7} + \frac{3}{7} = \frac{8}{7}$ . Convert to a mixed number:  $1\frac{1}{7}$ .
- Choice B is correct.** **(4.NF.B.4)** The numerator is 8 and the denominator is 10. This means we have 8 copies of  $\frac{1}{10}$ , which we write as  $8 \times \frac{1}{10}$ .
- Choice A is correct.** **(4.G.A.1)** When a segment is called  $MN$ , that means it starts at  $M$  and ends at  $N$  — those are the two endpoints. Point  $P$  is somewhere else entirely.
- Choice A is correct.** **(4.OA.B.4)** Multiples of 5 are what you get when you skip-count by 5: 5, 10, 15, 20, 25, ... Choice A counts in order with no skips. Choice B jumps 10 → 20 → 35 (gaps); choice C jumps over 25; choice D starts at 10 instead of 5.
- Choice C is correct.** **(4.MD.C.7)** Add the three spinner sections together:  $50^\circ + 60^\circ + 70^\circ = 180^\circ$ .
- Choice D is correct.** **(4.NF.A.1)** Circle A shows  $\frac{1}{3}$  shaded (120 degrees). Circle B has 6 parts. Multiply numerator and denominator by 2:  $\frac{1}{3} = \frac{1 \times 2}{3 \times 2} = \frac{2}{6}$ .
- Choice B is correct.** **(4.MD.C.5)** Desks and books have rectangular corners, which are right angles.
- Choice B is correct.** **(4.G.A.3)** A right isosceles triangle has two equal legs meeting at the right angle. The diagonal dashed line from that right angle to the middle of the opposite side is exactly the line of symmetry. The answer is **1** line of symmetry.
- Choice A is correct.** **(4.MD.C.6)** The ray lines up exactly with the  $80^\circ$  mark. Since  $80^\circ$  is between the  $75^\circ$  and  $85^\circ$  range and less than  $90^\circ$ , it's acute. The answer is **80** degrees.
- Choice D is correct.** **(4.OA.A.2)** The bar model shows Lily's bar split into 3 equal pieces, each the size of Ethan's 8 cards. Multiply:  $3 \times 8 = 24$  trading cards.
- Choice B is correct.** **(4.NF.B.3)** A unit fraction always has a numerator of 1. So  $\frac{3}{5}$  breaks down into three copies of  $\frac{1}{5}$ :  $\frac{3}{5} = \frac{1}{5} + \frac{1}{5} + \frac{1}{5}$ .
- Choice C is correct.** **(4.NF.B.4)** The multiples of  $\frac{2}{3}$  are:  $\frac{2}{3}, \frac{4}{3}, \frac{6}{3}, \dots$  Each one is obtained by multiplying  $\frac{2}{3}$  by whole numbers. Since  $\frac{4}{3} = 2 \times \frac{2}{3}$ , the answer is  $\frac{4}{3}$ .
- The correct answer is B, D.** **(4.MD.A.1)** Check each option. A: 2 pounds = 32 ounces, not 48 oz. B: 2 kg = 2,000 g, correct! C: 64 ounces = 4 pounds, not 3 pounds. D: 500 g = 0.5 kg, correct! E: 5 pounds = 80 ounces, not 90 oz. The correct answers are **B** and **D**.
- Choice D is correct.** **(4.NBT.B.5)** Break 15 into parts:  $52 \times (10 + 5) = 520 + 260 = 780$ .
- Choice D is correct.** **(4.OA.A.3)** Watch out for extra information! The 18 older books are not new sales, so we ignore them. Just multiply: 12 books/day  $\times$  15 days = 180 new books sold.
- Choice D is correct.** **(4.NBT.A.3)** We're rounding to the nearest thousand. Look at the hundreds digit:  $9 \geq 5$ , so round UP! But 9 becomes 10—a rollover! So 29,999 → **30,000**. ✓
- Choice C is correct.** **(4.MD.C.5)** Two-thirds of the circle is  $\frac{2}{3} \times 360^\circ = 240^\circ$ .
- Choice D is correct.** **(4.OA.B.4)** Squares form a grid: Figure 1 =  $1 \times 1 = 1$ , Figure 2 =  $2 \times 2 = 4$ , Figure 3 =  $3 \times 3 = 9$ . Figure 4 =  $4 \times 4 = 16$  squares.
- Choice B is correct.** **(4.NF.B.3)** Add numerators:  $1 + 3 = 4$ . We get  $\frac{4}{4}$ , which is one whole. When the top and bottom match, it equals **1**.
- Choice D is correct.** **(4.NBT.B.6)** We use long division:  $12 \div 5 = 2$  r2, bring down the 4 to get  $24 \div 5 = 4$  r4, then bring down the 5 to get  $45 \div 5 = 9$ . So **249** is our answer.
- Choice A is correct.** **(4.NF.B.3)**  $\frac{4}{4}$  is one whole, and  $\frac{1}{4}$  more makes  $1\frac{1}{4}$ . Add:  $4 + 1 = 5$ , so  $\frac{4}{4} + \frac{1}{4} = \frac{5}{4}$  ✓.
- Choice D is correct.** **(4.OA.A.1)** To find "how many times," divide the longer length by the shorter:  $10 \div 2 = 5$ . So the longer bar is **5** times as long as the shorter bar.



Trail Guide's Final Note

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## Hi, Brave Trail-Walker!

◇ You walked all 10 miles of the practice trail. Smooth paths, steep climbs, narrow passes. Every step taught you something. ◇

★ **Trail guides know:** the most important thing is to keep moving. Slow steps still get you there. You have a steady stride now. ★

### Trail Survey

- **Route Knowledge:** You know lots of problem types.
- **Steady Pace:** You don't rush. You don't stop.
- **Pack Loaded:** You have all the math tools you need.
- **Confidence:** You trust your training.

**Guide's tip:** on test day, stay on the trail you've walked before. Use the strategies you've practiced. Trust the route. The summit is one steady walk away!

If you want to share something or ask a question, please email me at [jay@testinar.com](mailto:jay@testinar.com).

**Jay Daie**

Your Math Trail Guide

# PRACTICE TODAY. ACHIEVE TOMORROW!

This **Grade 4 Math Practice Tests** book is designed to help students build strong math skills, boost confidence, and succeed in the classroom and beyond. With 10 full-length practice tests that reflect real test formats, students get the targeted practice they need to master key concepts, improve problem-solving abilities, and achieve their goals.

## PERFECT FOR:

- ✓ Classroom Practice
- ✓ Homework & Review
- ✓ Test Preparation

★ **CONFIDENCE IN MATH.  
SUCCESS FOR LIFE.**

## WHAT STUDENTS WILL GAIN:



### Stronger Concepts

Reinforce key Grade 4 math skills and build a solid foundation.



### Better Problem Solving

Develop critical thinking and solve problems with confidence.



### Test Confidence

Familiarize with test formats and reduce exam stress.



### Track Progress

Measure improvement and focus on areas that matter.



### Achieve Success

Build the skills and confidence to reach higher goals.

## TOPICS COVERED:

- ✓ Whole Numbers & Operations
- ✓ Fractions & Decimals
- ✓ Algebraic Thinking
- ✓ Geometry
- ✓ Measurement & Data
- ✓ Graphing & Data Analysis
- ✓ Number Patterns
- ✓ Word Problems
- ✓ Ratio & Proportion
- ✓ Perimeter, Area & Volume
- ✓ And More!



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& Problem-Solving



Prepares for Tests  
& Future Success